REMARKS/ARGUMENTS

Claims 36, 37, and 42-61 are now pending.

At the outset, Applicants would like to thank Examiner McGarry for indicating that Claims 36 and Claim 37 are allowable. For that reason, those claims will not be discussed further below.

Favorable reconsideration of Claims 42-61 is respectfully requested. Those claims are directed to an isolated polypeptide having an amino acid sequence which ***consists*** of the amino acids recited in Claims 42-45. Since the transitional phrase "consists of" is used in the claims with respect to the amino acid sequence, the claims embrace polypeptides which contain *only* the recited amino acids.

Claims 46-49 depend from Claims 42-45 and specify that the peptide is freeze-dried. Claims 50-53 depend from Claims 42-45 and specify that the peptide is in the form of a white powder. Claims 54-57 depend from Claims 42-45 and specify that the peptide is in the form of an acid addition salt. Claims 58-61 depend on Claims 54-57 and specify that the acid is selected from a specified group.

The rejection of Claims 38-45 under 35 U.S.C. §102(e) over U.S. 5,674,710 and U.S. 5,948,761, both to Seilhamer et al., is believed to be obviated by the amendment submitted above. The '761 patent is effectively a divisional of the '710 patent. Accordingly, the specification of each patent should be the same. For that reason, the reference below to "Seilhamer et al." refers to both patents, unless noted otherwise.

The claimed peptide sequences are not described by Seilhamer et al. The Examiner refers to SEQ ID NOs: 44-46. None of those sequences ***consist*** of the amino acid sequence as recited in the claims.

The Examiner also cites Claims 1-7 of the '761 patent. However, R^2 specified in those claims is not Lys-Val-Leu-Arg-Arg-His-OH, which is the corresponding sequence in the claimed sequence.

Claims 1-8 of the '710 patent have also been cited. Those claims are not directed to peptides. Moreover, R^2 specified in those claims is not Lys-Val-Leu-Arg-Arg-His-OH, which is the corresponding sequence in the claimed sequence.

Applicants agree that it is possible to pick and choose from the large number of sequences described in columns 4 and 5 of Seilhamer and arrive at the claimed sequences. So, while it may be possible to merely predict the amino acid sequence of human BNP from the teachings of Seilhamer et al., one skilled in the art would not have believed that such a sequence was practically isolated by the method described in those references. Although the presence and the amino acid sequence of porcine BNP have been widely known to one skilled in the art since the filing date of those references, it would have been incredibly difficult to anticipate the presence and the amino acid sequence of human BNP from such knowledge. Even if the existence of human BNP in the human body had been hypothesized at that time, it would have still been unclear whether the peptide having this sequence can exist and whether it is stable.

In contrast, the inventors of the present application actually demonstrate that human BNP can be isolated by the method described in the present invention and remains stable in the isolated form. Indeed, the present specification provides such experimental evidence by showing specific embodiments "human BNP-26" on page 21 and "human BNP-32" on page 22. Especially, isolated of the polypeptides having these amino sequences was carried out under freeze-dried conditions.

Moreover, the present inventors investigated physiochemical activities of the polypeptides denoted BNP-26 and BNP-32, and found that these polypeptides exist as a white powder and are stable (see pages 22-23). These isolated species were also found to be basic, so the inventors arrived at the conclusion that an acid addition salt (not a basic addition salt) of the polypeptide having each sequence can be used as a pharmaceutical composition (see page 10-11).

Seilhamer et al. clearly fail to describe the above-mentioned peptides isolated by the method of the present invention, and those references are also silent on the physicological activities confirmed by the present invention as described above. Although Seilhamer et al. discloses a salt of its compound (cf. US 5,674,710, column 17, pages 47-59), this reference does not make clear which of an acid addition salt and basic addition salt is more preferred for pharmaceutical use. Those references also fails to describe specific acids "sulfuric acid, formic acid, citric acid, tartaric acid, fumaric acid and maleic acid" recited in the claims. The achievement of the present invention is thus deeply associated with the success in isolation of BPN-26 and BPN-32, which is not anticipated by Seilhamer et al.

Based on the foregoing, Claims 42-61 are not anticipated by Seilhamer et al. Accordingly, withdrawal of those grounds of rejection is respectfully requested.

Applicants submit that the present application is in condition for allowance. Early notice to this effect is earnestly solicited.

Respectfully submitted,

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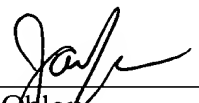

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